



The Cauvery river basin in southern India: Major challenges and possible solutions in the 21st century

Author(s): Vanham D, Weingartner R, Rauch W
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Abstract:

India is facing major challenges in its water resources management (WRM) sector. Water shortages are attributed to issues such as an exPLOsion in population, rapid urbanization and industrialization, environmental degradation and inefficient water use, all aggravated by changing climate and its impacts on demand, supply and water quality. This paper focuses on the contemporary and future situation in the Cauvery river basin in Southern India, shared by different states, predominantly Karnataka and Tamil Nadu. As water issues largely fall under the authority of the states, inter-state water disputes have a long tradition in the Cauvery river basin. Future changes in precipitation during the two monsoon seasons will only increase these tensions. Both states depend on the arrival of these monsoon rains to water their crops and to replenish the groundwater. The paper identifies the major challenges and general possible solutions for sustainable WRM within the river basin. It synthesises the relevant literature, describes practices that should be addressed in the scope of integrated WRM—including water availability increase and demand management—and stresses the need for further quantitative analyses.

Source: Ask your librarian to help locate this item.

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Other Communication Audience: Water resources managers

Exposure :

weather or climate related pathway by which climate change affects health

Food/Water Quality, Food/Water Security, Precipitation

Geographic Feature:

resource focuses on specific type of geography

Freshwater

Climate Change and Human Health Literature Portal

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: India

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Workers

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content